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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/789,645	03/01/2004	Lance Cole Wright	32923.1	9166

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Texas Instruments Incorporated
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EXAMINER

VESPERMAN, WILLIAM C

ART UNIT	PAPER NUMBER
2813	

DATE MAILED: 08/10/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/789,645

Applicant(s)

WRIGHT, LANCE COLE

Examiner

William C. Vesperman

Art Unit

2813

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 March 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) 1-8 and 11 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 01 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- 1) ☐ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Detailed Action

1. This action is in reply to applicant's filing of 3/1/2004.

Election/Restrictions

2. Restriction to one of the following inventions is required under 35 U.S.C. 121.

- I. A method of inverting at a work location an article having first and second opposed surfaces both of which are generally normal to the article's periphery, which comprises: closing one end of an article-periphery-conformal aperture formed through a member to render the aperture a blind aperture; inserting the article into the blind aperture so that the first article surface is supported at the blind end of the aperture and its second surface is exposed at the work station; closing the other end of the aperture to render the aperture a closed aperture; and thereafter, inverting the carrier so that should the one aperture end be opened, the first article surface is exposed at the work station. (Claims 1 - 3 may be considered)

- II. A method as in Claim 1, wherein: the article is a BGA semiconductor device the first surface of which carries an array of one or more conductive balls, the member is a waffle pack, and the BGA device is initially inserted into the blind aperture with its second surface exposed following, and as a result of, a previous die bonding operation. (Claim 4 may be considered)

III. A method of packaging a BGA semiconductor device having first and second opposed surfaces both of which are generally normal to the device's periphery, a first surface of the device carrying an array of contact balls, which comprises: closing one end of a device-periphery-conformal aperture formed through a member to render the aperture a blind aperture; inserting the device into the blind aperture so that the balls on the first article surface are supported at the blind end of the aperture and its second surface is unsupported and exposed; and closing the other end of the aperture to render the aperture a closed aperture; the member being manipulable so that thereafter opening the one end of the closed aperture with the second surface of the device supported exposes the first device surface with the balls thereon.

(Claims 5 - 8 may be considered)

IV. A carrier for an article having first and second opposed surfaces both of which are generally normal to the periphery of the article which comprises: a member having an article-periphery-conformal aperture therethrough, the aperture receiving the article when the member is in a first orientation a first cover removably associated with one side of the member to render the aperture a blind aperture into which blind aperture an article is insertable with the first surface abutting the first cover and the second surface exposed; a second cover removably associated with the another side of the member to render the blind aperture a closed aperture in which closed aperture an inserted article may be held, the member being manipulable into a second orientation wherein the second surface abuts the second cover so that the article is presented with the first side

surface exposed following removal of the first cover, wherein the carrier contains plural apertures, one or more articles are carried in the apertures, and both covers are associated with the member; and wherein the articles are BGA semiconductor devices, the first side of each of which carries a grid of conductive balls.

(Claim 11 may be considered)

3. This application contains claims directed to the following patentably distinct species of the claimed invention as previously described in Groups I, II and III above.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable. Currently, Claim 1 is generic with regards to Groups I, II and III.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

4. Inventions (I – III) and IV are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed (I – III) can be used to make other and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the process as claimed can be used to make another and materially different product such as packaging for an egg, comprising a pointed end and a rounded end, instead of a BGA device with contacts on one surface.

5. Be cause these inventions I, II, III and IV are distinct for the reasons above, restriction for examining purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include an election of the invention to be examined even though the requirement be traversed (37 CFR 1.143)

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one

or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a petition under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William C. Vesperman whose telephone number is 571-272-1701. The examiner can normally be reached on Mon. - Fri., 8:00 - 4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Carl White, Jr. can be reached on 571-272-1702. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


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Art Unit 2813

July 29, 2004


CARL WHITEHEAD, JR.
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800